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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,350	08/28/2003	Jeffrey J. Norris	2316.1486USC1	6705

7590 02/03/2004

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EXAMINER
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HARVEY, JAMES R

ART UNIT	PAPER NUMBER
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2833

DATE MAILED: 02/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/650,350

Applicant(s)

NORRIS, JEFFREY J.

Examiner

James R. Harvey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 08232003 6) ☐ Other: .

## ***DETAILED ACTION***

### ***Continuation Examination***

Acknowledgement is made that this is a continuation of application Serial No. 09/939,202, filed August 24, 2001.

### ***Information Disclosure Statement***

- The Information Disclosure statement(s) and related documents that were filed on 8-28-2003 have been considered.

### ***Claim Objections***

- Claim(s) 1-14 is/are objected to because of the following informalities:
  - In reference to Claim(s) 1, the claim limitations “spaced apart” and “extending generally” are vague and indefinite. For purposes of examination, it is assumed that the language is intended to mean “extending” instead of spaced and “extending in a direction that is generally” instead of “extending generally”. An examination based on the merits, as best understood, is addressed below.
  - In reference to Claim(s) 2, while surface has been defined in claim 1, the plural “surfaces” has not been previously defined. For purposes of examination, it is assumed that the language is intended to mean “at least one engagement surface is on at least one of the three arms”. An examination based on the merits, as best understood, is addressed below.
  - In reference to Claim(s) 4 and 9, concerning the claim limitation “circumscribes or circumscribing the majority of the terminal or main body”, is vague and indefinite. The meaning is not defined in the claims and the known meanings is to encircle or enclose and object (see attached definition from The American Heritage Dictionary). This limitation is not shown in the

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drawings because nothing wraps around the main body nor is the limitation supported in the specification. For purposes of examination, it is assumed that the language is intended to mean “the contact surface is a shoulder surface integral with the main body”. An examination based on the merits, as best understood, is addressed below.

-- In reference to Claim(s) 8, the claim limitation “separate engagement surfaces” is vague and indefinite. The terminal is integral and the engagement surfaces can not be separate from the terminal. For purposes of examination, it is assumed that the language is intended to mean “integral engagement surfaces”. An examination based on the merits, as best understood, is addressed below.

-- Appropriate response to the above is required.

***Claim Rejections - 35 USC § 102***

- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**\*\* Claim(s) 1-7 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Costello et al. (5139446).**

-- In reference to Claim(s) 1, Costello shows (cover sheet)

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a) a terminal body having a first end 42, a second end 62, and a longitudinal axis extending between the first and second ends,

b) an insertion structure 40 positioned between the first and second ends of the terminal body, the insertion structure including arms (50, 52, 58, and 59) extending from the terminal body and extending in a direction generally parallel to the longitudinal axis of the terminal body, each of the arms including:

i) a push surface (near the lead line of numeral 51);

ii) an engagement surface oriented opposite the push surface (see examiner's figure).

-- In reference to Claim(s) 2, the insertion structure has three arms, at least one engagement surface is on at least one of the three arms and is located on a single plane generally perpendicular to the longitudinal axis of the terminal body (see examiner's figure).

-- In reference to Claim(s) 3, Costello shows (cover sheet) the insertion structure 40 includes a shoulder (radius between arms and the longitudinal axis and element 47 on arms 52) construction interconnecting each of the arms, the shoulder construction further defining the push surface of each of the arms (see examiner's figure).

-- In reference to Claim(s) 4, Costello shows (cover sheet) the contact surface is a shoulder surface integral with the main body.

-- In reference to Claim(s) 5, Costello shows (cover sheet) first and second spring arms 44 extending upward from the shoulder construction 47 of the electrical terminal.

-- In reference to Claim(s) 6, Costello shows (cover sheet) the insertion structure includes at least three arms(50, 58, and 59), one of the arms 58 being positioned on a side of the electrical terminal opposite the other arms.

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-- In reference to Claim(s) 7, Costello shows (cover sheet) the insertion structure has a C-shaped cross-section taken perpendicular to the longitudinal axis of the electrical terminal.

\*\* Claim(s) 1, 3-5, and 7 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Travis (3142891).

-- In reference to Claim(s) 1, Travis shows (cover sheet)

a) a terminal body 10 having a first end (near 26 ), a second end (near 14), and a longitudinal axis extending between the first and second ends,

b) an insertion structure (near 30 ) positioned between the first and second ends of the terminal body, the insertion structure including arms (the linear elements on either side of the radius that the lead line of numeral 30 touches) extending from the terminal body and extending in a direction generally parallel to the longitudinal axis of the terminal body, each of the arms including:

- i) a push surface (contact surface (see examiner's figure);
- ii) an engagement surface oriented opposite the push surface (see examiner's figure).

-- In reference to Claim(s) 3, Travis shows (cover sheet) the insertion structure includes a shoulder (the radius that the lead line of numeral 30 touches) construction interconnecting each of the arms, the shoulder construction further defining the push surface of each of the arms (see examiner's figure).

-- In reference to Claim(s) 4, Travis shows (cover sheet) the contact surface is a shoulder surface integral with the main body.

-- In reference to Claim(s) 5, Travis shows (cover sheet) first and second spring arms 16 and 18

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extending upward from the shoulder construction of the electrical terminal.

-- In reference to Claim(s) 7, Travis shows (cover sheet) the insertion structure has a C-shaped cross-section taken perpendicular to the longitudinal axis of the electrical terminal.

\*\* Claim(s) 8-11, 13, and 14 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Travis (3142891).

-- In reference to Claim(s) 8, Travis shows (figure 1 )

- a) a first section (see examiner's figure) that receives an electrical contact;
- b) a second section (see examiner's figure) configured for insertion into a through hole of a circuit board, and 1<sup>st</sup> and 2<sup>nd</sup> pin members (see examiner's figure),
- c) a third section integral with the first and second section (see examiner's figure), the third section including:
  - i) a contact surface oriented generally perpendicular to the longitudinal axis, the contact surface can be configured to receive a force applied to position the electrical contact within the through hole of the circuit board;
  - ii) at least three integral engagement surfaces opposite the contact surface (see examiner's figure), the engagement surfaces can be configured to contact the circuit board to limit the depth of insertion of the electrical terminal within the through hole of the circuit board.

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-- In reference to Claim(s) 9, Travis shows the contact surface is a shoulder surface integral with the main body.

-- In reference to Claim(s) 10, Travis shows (cover sheet) the first section includes first 16 and second 18 spring arms, the first and second spring arms extending upward from the shoulder surface of the electrical terminal.

-- In reference to Claim(s) 11, Travis shows (cover sheet) a plurality of projections se extending from, and spaced apart from the third section of the electrical terminal (see examiner's figure).

-- In reference to Claim(s) 13, Travis shows (cover sheet) the engagement surfaces are located along a single plane generally perpendicular to the longitudinal axis of the electrical terminal.

-- In reference to Claim(s) 14, Travis shows (cover sheet) the third section has a C-shaped cross-section taken perpendicular to the longitudinal axis of the electrical terminal.

\*\* Claim(s) 8, 11, and 12 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Ruehlemann (3231848).

-- In reference to Claim(s) 8, Ruehlemann shows (figure 7 )

- a) a first section (see examiner's figure) that receives an electrical contact;
- b) a second section (see examiner's figure) that can be configured for insertion into a through hole of a circuit board, and with 1<sup>st</sup> and 2<sup>nd</sup> pin members (see examiner's figure),
- c) a third section integral with the first and second section (see examiner's figure), the third section including:
  - i) a contact surface oriented generally perpendicular to the



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longitudinal axis, the contact surface can be configured to receive a force applied to position the electrical contact within the through hole of the circuit board (see examiner's figure);

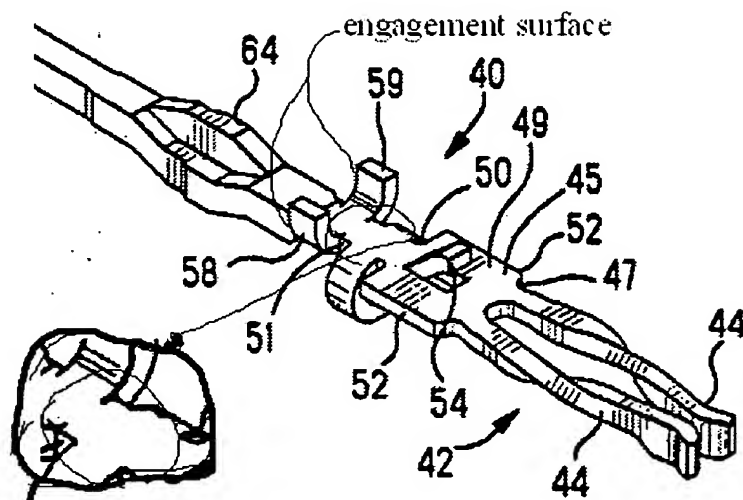
- ii) at least three integral engagement surfaces opposite the contact surface (see examiner's figure),

the engagement surfaces can be configured to contact the circuit board to limit the depth of insertion of the electrical terminal within the through hole of the circuit board.

-- In reference to Claim(s) 11, Ruehleemann shows (see examiner's figure) a plurality of projections 224 extending from, and spaced apart from the third section of the electrical terminal (see examiner's figure).

-- In reference to Claim(s) 12, Ruehleemann shows (figure 7) at least one of the plurality of projections 224 is located on a side of the electrical terminal opposite the other projections.

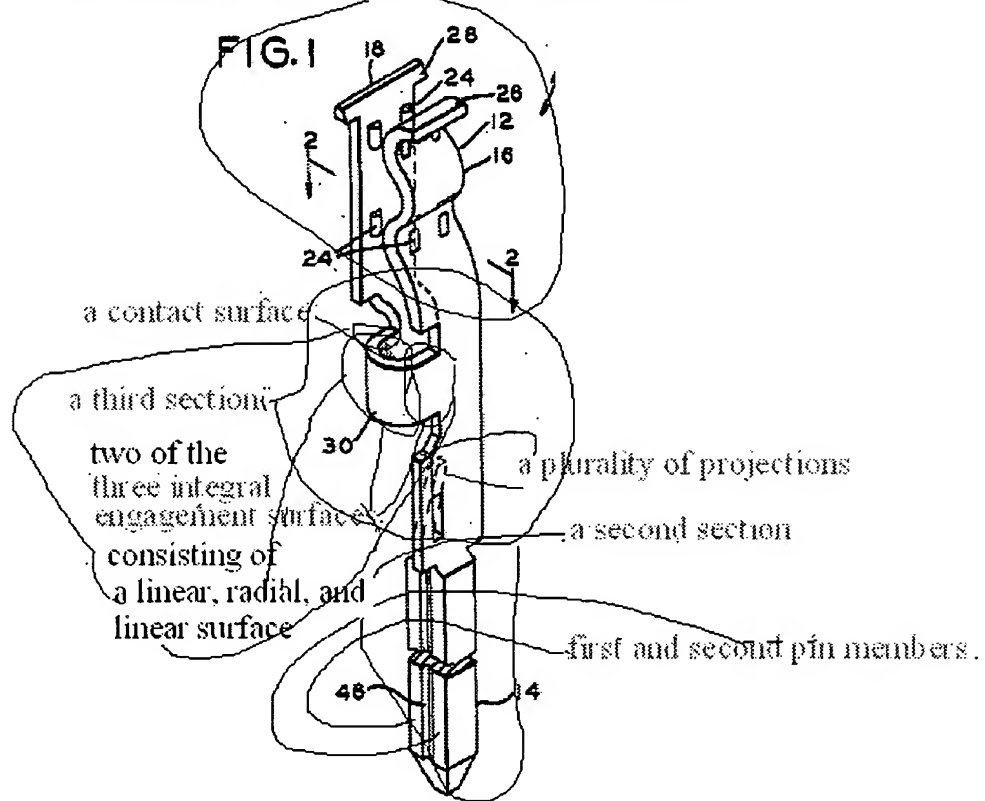
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shoulder construction further defining the push surface of each of the arms

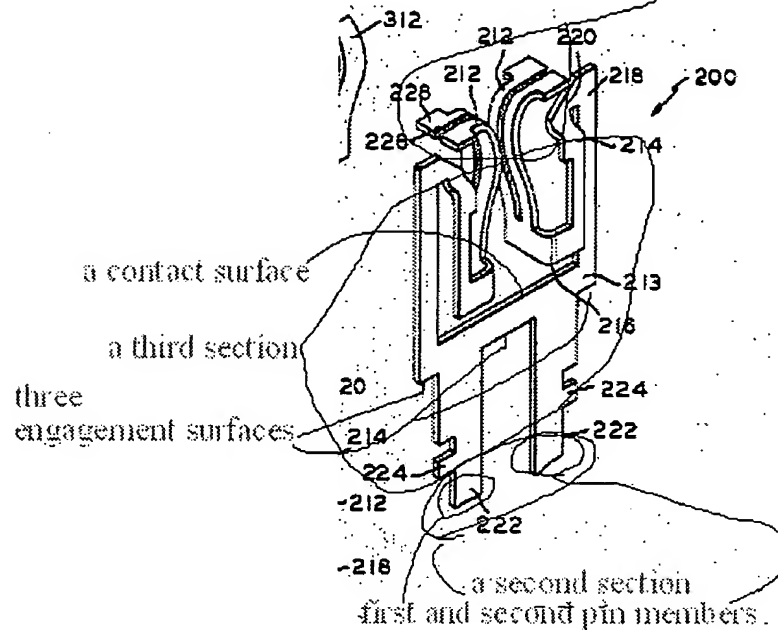
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a first section that receives an electrical contact;



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a first section that receives an electrical contact;



### *Conclusion*

Effective May 1, 2003, the United States Patent and Trademark Office has a new Commissioner for Patents address. Correspondence in patent related matters must now be addressed to:

**Commissioner for Patents**

**P. O. Box 1450**

**Alexandria, VA 22313-1450**

For additional information regarding the new address, see Correspondence with the United States Patent and Trademark Office, 68 Fed. Reg. 14332 (March 25, 2003).

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- Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Harvey whose telephone number is 703-305-0958. The examiner can normally be reached on 8:00 A.M. To 5:00 P.M.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 703-308-2319.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

- Effective **October 1, 2003**, all patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, **(703) 872-9306**, with a few exceptions. *See Fax Automation in Technology Center 1700, 1237 Off. Gaz. Pat. Office 140* (August 29, 2000). Replies to Office actions including after-final amendments that are transmitted by facsimile must be directed to the central facsimile number. Unofficial correspondence such as draft proposed amendments for interviews may continue to be transmitted by facsimile to the Technology Centers (TCs). *See Fax Automation in Technology Center 1700, 1237 Off. Gaz. Pat. Office 140* (August 29, 2000).

James R. Harvey, Examiner

jrh  
January 16, 2004

  
THO D. TA  
PRIMARY EXAMINER

## cir·cum·scribe

cir·cum·scribe (sûr'kəm-skrib') *verb, transitive*

cir·cum·scribed, cir·cum·scrib·ing, cir·cum·scribes

1. To draw a line around; encircle.
2. To limit narrowly; restrict.
3. To determine the limits of; define. See synonyms at limit.
4. a. To enclose (a polygon or polyhedron) within a configuration of lines, curves, or surfaces so that every vertex of the enclosed object is incident on the enclosing configuration. b. To erect (such a configuration) around a polygon or polyhedron: *circumscribe a circle around a square*.

[Middle English *circumscriben*, from Latin *circumscribere* : *circum-*, circum- + *scribere*, to write.]

— cir'cum·scrib'a·ble *adjective*

— cir'cum·scrib'er *noun*

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